REMARKS

This application has been reviewed in light of the Final Office Action dated May 25, 2006. At the outset, the Applicants wish to thank the Examiner for discussing the application with Applicants' attorney on July 18, 2006.

Claim 35 is pending in this application. In view of the remarks presented below, Applicants respectfully request favorable reconsideration and allowance of Claim 35.

35 U.S.C. §102(B) REJECTION OF CLAIM 35 OVER U.S. PATENT NO. 5,381,944 ("MAKOWIECKI")

Claim 35 stands rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,381,944 ("Makowiecki"). It is well-established that for a reference to defeat a claim's novelty under 35 U.S.C. § 102 (*i.e.*, anticipate the claim), it must disclose each and every element of the claim. Applicants respectfully request that this rejection be withdrawn because Makowiecki fails to teach each and every claim limitation called for in Claim 35.

Claim 35 of the present application recites a method of connecting a semiconductor or microelectronic device having one or more electrical contacts to a substrate having one or more receiving contacts. According to the claimed method, disposed between the device and the substrate is a reactive multilayer foil which is composed of 1) one or more regions (regions 91 in Figure 9A) that react to form a conductive path (region 95 in Figure 9B) and 2) one or more second regions which are composed of non-conductive material (region 92 in Figure 9A) which does not react (i.e., remains non-conductive) or a material that reacts to form a nonconductive or insulating region (region 92 in Figure 9B).

In addition, the method calls for "registering the contacts of the device, the contacts of the substrate and the first regions (i.e., the conductive regions) of the foil." (See Claim 35; parenthetical added). Advantageously, following the reaction, the registered device and substrate

are connected, both physically (via the bonding of the conductive regions 95 and the nonconductive regions 92 if they react) and electrically (via the conductive region 95). It is noted that the registration is made possible by the arrangement of the conductive and non-conductive regions as through-thickness, i.e., wherein each region extends through the foil from the bottom to the top. The Examiner is referred to Figure 9 which illustrates an elevation view of the patterned reactive foil and to paragraphs 68-71 and for a corresponding description.

In contrast, Makowiecki does not disclose a method of connecting a device and a substrate. In fact, the section cited by the Examiner in the Office Action (col. 2, lines 50-65) mentions neither a semiconductor, a microelectronic device, electrical contacts, nor a substrate having receiving contacts. It follows that Makowiecki also fails to disclose the registration of a device, substrate and contacts, since the reference is devoid of any mention of a device, substrate, and contacts. Applicants note that the Office Action does not cite any section of Makowiecki to support the statement that the reference includes the registration step. (Office Action, page 2).

In summary, Makowiecki does not disclose the use of foil that, following a reaction, includes conductive regions and non-conductive regions that may be used to physically and electrically connect a device and a substrate. Accordingly, because Makowiecki fails to disclose each and every element of the claimed invention, the § 102(b) rejection of Claim 35 should be withdrawn.

Applicants further note that the remarks set forth above were previously presented in the Applicants' response to Non-Final Office Action dated April 20, 2006 (relevant section excerpted below), and as such, are not new to the record in this case:

> Furthermore, column 2, lines 50-65, the passage cited by the Examiner, does not provide a showing of a method for connecting

> a semiconductor or microelectronic device having one or more electrical contacts to a substrate having one or more receiving contacts. In addition, Makowiecki does not describe the registering of the contacts of the device, the contacts of the substrate, and the conductive regions of the foil.

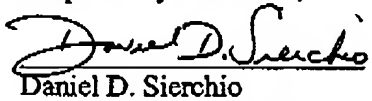
(Applicants' Response to Non-final Office Action dated April 20, 2006)

Applicants respectfully request that the above request for reconsideration be entered and that the present application be placed in condition for allowance.

No fee is believed due in connection with this Response. However, if a fee is deemed necessary in order to have this Response entered, please charge such fee to Deposit Account No. 501358.

Applicants' undersigned attorney may be reached by telephone at (973) 597-2500. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



Daniel D. Sierchio
Attorney for Applicants
Reg. No. 53,591

LOWENSTEIN, SANDLER PC
65 Livingston Avenue
Roseland, NJ 07068
Tel.: 973-597-2500
Fax.: 973-597-2400

13631-48 Reply after Final Office Action under 37 C.F.R. §1.116

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Examiner: Jonathan J. Johnson
TIMOTHY P. WEIHS ET AL:	)	Group Art Unit: 1725
Application No.: 10/761,685	)	
Filed: January 21, 2004	)	
For: METHOD OF CONNECTING SEMICONDUCTOR OR MICROELECTRONIC DEVICE TO A SUBSTRATE	)	July 25, 2006

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY TO FINAL OFFICE ACTION UNDER 37 C.F.R. §1.116

Sir:

In response to the Final Office Action dated May 25, 2006, Applicants respectfully request that the Remarks beginning on page 2 be entered into the above-identified application.

REMARKS

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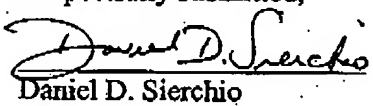

Daniel D. Sierchio
Attorney for Applicants
Reg. No. 53,591

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